

Amendments to the SPECIFICATION

Please delete the paragraph on the top of page 9 of the specification (published as paragraph 0039), beginning with “(c) at least one” and ending with “relatively low viscosity,” and replace it with the following paragraph:

(c) at least one low refractive index additive capable of modifying dielectric anisotropy, conductivity and viscosity of the mixture, said at least one low refractive index having a ~~relatively~~ low viscosity and a refractive index that is lower than the ordinary refractive index of the liquid crystalline mixture so as to decrease and adjust the ordinary refractive index of said mixture value below the refractive index of silica.

Please delete the three paragraphs on page 11 starting at line 7 and ending at line 26 of the specification (published as paragraphs 0032, 0033, and 0034) and replace them with the following three paragraphs:

Figures 4a and 4b are representations of the surface chemical bonding of (Figure 4a) general reagent compound as defined in the present invention, and (Figure 4b) two types of chemical bonding that may occur between the glass surface and the at least one reagent compound.

Figures 5a to 5c are microphotographs representing an optical fiber with reduced diameter in an electro-optic cell with LC observed with a polarizing microscope (25X) between crossed polarizers; (Figure 5a) electro-optic liquid crystal mixture without reagent compound - a high pre-tilt angle is observed at the surface of the fiber; (Figure 5b) an electro-optic cell filled with a mixture containing 5% of the at least one reagent compound - a good planar alignment being observed along the direction of the fiber axis; and (Figure 5c) the same electro-optic cell observed with a polarizing microscope (25X) without polarizers - one may compare the fiber diameter with the structures observed in the two previous microphotographs.

Figures 6a to 6c are representations of different liquid-crystal alignment types: (Figure 6a) parallel alignment (along the waveguide axis); (Figure 6b) perpendicular alignment (parallel to the waveguide radius); and (Figure 6c) circular alignment (tangential to the waveguide surface and perpendicular to the waveguide axis).